

What is claimed is:

1. A wireless gateway architecture, comprising:

a chassis having a common backplane;

5 a common bearer interface coupled to the backplane for communicating with wired and wireless networks using a plurality of communication standards; and a plurality of system modules coupled to the backplane, at least two of the system modules providing support for two different wireless application protocols.

2. An architecture according to claim 1, wherein the plurality of system modules are comprised of a respective plurality of cards.

3. An architecture according to claim 1, further comprising:

15 a load balancer for balancing processing among two or more of the plurality of system modules that provide support for the same wireless application protocol.

4. An architecture according to claim 1, wherein at least one of the system modules includes a TSL/WTSLSL accelerator.

20 5. An architecture according to claim 1, further comprising storage for storing personalization information useful for intelligent switching of wireless connections.

6. An architecture according to claim 5, wherein the personalization information is explicitly provided by a user.

25 7. An architecture according to claim 5, wherein the personalization information is implicitly provided in wireless data.

8. A wireless gateway, comprising:

a CPU that manages the wireless gateway; and
a plurality of stack layer engines separate from the CPU, each of the plurality of stack layer engines respectively processing requests associated with a different Wireless

5 Application Protocol (WAP) layer.

9. A wireless gateway according to claim 8, further comprising:

a data memory that stores data associated with wireless user requests and is accessible to the plurality of stack layer engines; and
10 a request structure queue that stores control information associated with the wireless user requests,
the stack layer engines periodically polling the request structure and operating on data in the data memory in accordance with the control information in the request structure.

15 10. A wireless gateway, comprising:

a CPU that manages sessions between a network host and a wireless host; and
a WAP engine separate from the CPU that encodes content from the network host destined for the wireless host and decodes content from the wireless host destined for the network host.

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11. A wireless gateway according to claim 10, further comprising:

a program memory that stores instructions for execution by the CPU; and
a data memory that stores data for operation by the instructions,
the WAP engine being further separate from the program memory and the data

25 memory.

12. A wireless gateway according to claim 10, wherein the WAP engine includes:

first buffers for storing textual content associated with the network host;

second buffers for storing binary content associated with the wireless host;

a WML mapping table that provides a mapping between the textual content and

5 the binary content; and

control logic coupled to the first and second buffers and the WML mapping table, the control logic controlling the encoding and decoding in accordance with the mapping in the WML mapping table.

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